

Claims

1. A pipe separator for the separation of fluids, for example separation of oil, gas and water in connection with the extraction and production of oil and gas from formations beneath the sea bed, comprising a pipe-shaped separator body (1) with an inlet and outlet that principally corresponds to the transport pipe (4, 7) to which the pipe separator is connected,
characterised in that
a pipe bend or loop (2) is arranged in the pipe separator (1) or in connection with its outlet to form a downstream fluid seal in relation to the pipe separator (1), which is designed to maintain a fluid level in the pipe separator, but which also allows the pipe separator (1) and the loop (2) to be pigged.
2. A pipe separator in accordance with claim 1,
characterised in that
there is a cyclone (11) in connection with the well head(s) upstream of the pipe separator (1) for the separation of gas and that the gas is designed to be conducted in a pipe (12) back to the transport pipe (4) downstream of the pipe separator (1).
3. A pipe separator in accordance with claim 1,
characterised in that
a bypass pipe (14) for gas is designed to conduct gas around the fluid seal (2) and that the inlet of the pipe (14) is connected to the pipe separator upstream of it, while the outlet is connected to the transport pipe (4) downstream of the pipe separator (1).

4. A pipe separator in accordance with claims 1 and 2,
characterised in that
there are a compact electrostatic coalescer and, after it, an additional separator (16) downstream of the pipe separator (1) and that the gas from the cyclone (11) is designed to be conducted back to the transport pipe (4) after the additional separator (16), while the separated water from the additional separator (16) is designed to be conducted to reinjection in a well nearby.